

CLAIMS

What is claimed is:

1. A method comprising:
using an optical storage drive to read a file from an optical storage medium, the optical storage drive having a plurality of drive speeds; and
determining a drive speed from the plurality of drive speeds based upon a format of the file.
2. The method of claim 1, wherein the file has a format selected from the group consisting of CD-DA, CD-ROM, CD-R, CD-RW, DVD-Video, DVD-ROM, and DVD-RAM.
3. The method of claim 1, wherein the plurality of drive-speeds comprises 1X, 2X, 4X, 8X, 10X, 12X, 16X, 20X, 24X, 32X, 40X, and 52X.
4. The method of claim 1, wherein determining a drive speed further comprises:
accessing a coded drive-speed lookup table.
5. The method of claim 4, wherein the coded drive-speed lookup table is stored as firmware.
6. The method of claim 5, wherein the firmware is stored in a nonvolatile memory storage device.
7. A method comprising:
receiving to an optical storage device, a command to read a file from an optical storage medium, the command indicating a file type;
accessing a coded drive-speed lookup table, the coded drive-speed lookup table storing a plurality of drive-speeds, each drive-speed corresponding to at least one file type;

obtaining a coded drive-speed corresponding to the file type; and
operating a drive of the optical storage device at a speed indicated by the coded drive-speed.

8. The method of claim 7, wherein the file type is selected from the group consisting of CD-DA, CD-ROM, CD-R, CD-RW, DVD-Video, DVD-ROM, and DVD-RAM.

9. The method of claim 7, wherein the plurality of drive-speeds comprises 1X, 2X, 4X, 8X, 10X, 12X, 16X, 20X, 24X, 32X, 40X, and 52X.

10. The method of claim 7, wherein the coded drive-speed lookup table is stored as firmware.

11. The method of claim 10, wherein the firmware is stored in a nonvolatile memory storage device.

12. A machine-readable medium that provides executable instructions which, if executed by a processor, will cause said processor to perform operations comprising:

reading a file from an optical storage medium using an optical storage drive, the optical storage drive having a plurality of drive speeds; and

determining a drive speed from the plurality of drive speeds based upon a format of the file.

13. The machine-readable medium of claim 12, wherein the format of the file is selected from the group consisting of CD-DA, CD-ROM, CD-R, CD-RW, DVD-Video, DVD-ROM, and DVD-RAM.

14. The machine-readable medium of claim 12, wherein the plurality of drive-speeds comprises 1X, 2X, 4X, 8X, 10X, 12X, 16X, 20X, 24X, 32X, 40X, and 52X.

15. The machine-readable medium of claim 12, wherein determining a drive speed further comprises:

accessing a coded drive-speed lookup table.

16. The machine-readable medium of claim 15, wherein the coded drive-speed lookup table is stored as firmware.

17. The machine-readable medium of claim 16, wherein the firmware is stored in a nonvolatile memory storage device.

18. The machine-readable medium of claim 17, wherein the nonvolatile memory storage device is selected from the group consisting of: a ROM, a PROM, an EPROM, an EEPROM, and flash memory.

19. An apparatus comprising:

an optical storage drive device driver to receive a command to read a file from an optical storage medium, the file having a file type;

a firmware having stored therein a plurality of coded drive-speeds, each coded drive-speed corresponding to at least one file type;

a controller to access the firmware and obtain a coded drive-speed corresponding to the file type;

a motor control hardware register to receive the coded drive-speed, the motor control hardware register limiting a drive voltage to a drive of the optical storage device such that the drive operates at a speed indicated by the coded drive-speed.

20. The apparatus of claim 19, wherein the file type is a type selected from the group consisting of CD-DA, CD-ROM, CD-R, CD-RW, DVD-Video, DVD-ROM, and DVD-RAM.

21. The apparatus of claim 19, wherein the plurality of coded drive-speeds comprises 1X, 2X, 4X, 8X, 10X, 12X, 16X, 20X, 24X, 32X, 40X, and 52X.

22. The apparatus of claim 19, wherein the firmware is stored in a nonvolatile memory storage device.
23. The apparatus of claim 22, wherein the nonvolatile memory storage device is selected from the group consisting of: a ROM, a PROM, an EPROM, an EEPROM, and flash memory.
24. A system comprising:
 - a processor;
 - an optical storage drive; and
 - a memory coupled to the processor, the memory having stored therein, executable instructions which, when executed by the processor, cause the processor to perform operations comprising,
 - determining a content of an optical storage medium currently inserted in the optical storage drive;
 - setting a drive speed of the optical storage drive based upon the content of the optical storage medium.
25. The system of claim 24, wherein the content of the optical storage medium has a format, the format selected from the group consisting of CD-DA, CD-ROM, CD-R, CD-RW, DVD-Video, DVD-ROM, and DVD-RAM.
26. The system of claim 24, wherein the drive speed is a speed selected from the group consisting of: 1X, 2X, 4X, 8X, 10X, 12X, 16X, 20X, 24X, 32X, 40X, and 52X.
27. The system of claim 23, wherein setting a drive speed further comprises:
 - accessing a coded drive-speed lookup table.
28. The system of claim 27, wherein the coded drive-speed lookup table is stored as firmware.

29. The system of claim 28, wherein the firmware is stored in a nonvolatile memory storage device.

30. The system of claim 29, wherein the nonvolatile memory storage device is selected from the group consisting of: a ROM, a PROM, an EPROM, an EEPROM, and flash memory.

Attorney's Office